



San Jacinto River Waste Pits Superfund Site

USACE Support



San Jacinto River Waste Pits

Oct 1964



**South
Impoundment
1965**



Temporary Cap Construction Completed July 2011



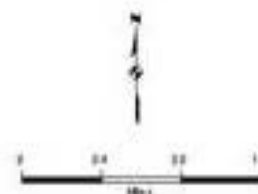


Previous USACE involvement:

- **Review of PRP modeling report.**
- **Review of PRP temporary cap design.**
- **Review of PRP draft Feasibility Study.**
- **Special Permit Area (EPA/USACE/TCEQ).**

San Jacinto River Waste Pits

-  Preliminary Perimeters - EPA (USEPA)
-  Permits Areas of Concern -
USACE, EPA, TCEQ (USEPA)
-  1966 Original Perimeters
of Improvements - EPA (USEPA)
-  Identify & Improve
Leak of 1-10 - EPA (USEPA)



Source:
Aerial photo is from DigitalGlobe 1/2000.
Preliminary Perimeters is from EPA Region 6.
1966 Original Improvements was created by EPA
Region 6 using 1966 aerial photo from USGS.
Improvements Leaks of 1-10 was created by EPA
Region 6 using 1964 aerial photo from USGS.
Permits Area of Concern is from the USACE, EPA,
and TCEQ.

EPA makes no claims as to the
accuracy of the data or its suitability
for any particular use.

Map created February 10, 2011



EPA Region 6
GIS Support Team
Dallas, Texas
20110210T01



The Issues:

- **San Jacinto River**
- **Community concerns**

San Jacinto River

- Upper Texas coast recorded 25 hurricanes, 7 of which were major (Category 3 to 5) storms.
- October 1994 storm greater than 100-year flood (1.6 times):
 - Major soil erosion – 8 pipelines ruptured & 29 undermined; 3000 homes destroyed.
 - 10 to 12-feet of bed scour south of the I-10.



IH-10

Barges

Lower San Jacinto River

San Jacinto River at I-10 (Photo: HCFCD)

Temporary Cap – Berm Erosion

- Western Berm erosion July 2012.
- Completion of repairs August 2012.



USACE Support

- **Should waste stay or should it go?**
- **Construction oversight (future - amend IAG).**

Engineer Research and Development Center (ERDC), Vicksburg MS.

U.S. Army Corps of Engineers

- Computer models – river flow & scour.
- Evaluation of remedial alternatives.
- Short & long term cap reliability? [storms, prop wash & barge strikes].
- Any migration through cap?
- Removal Best Management Practices.



A satellite map of the Houston area, Texas, showing the Houston Ship Channel and Lake Houston. The water bodies are highlighted in blue. Red arrows point from text labels to specific locations: Lake Houston, SJR Waste Pits, and Morgan's Point. The Houston Ship Channel is labeled in the center-left. A scale bar indicates 2.838 Kilometers. Various highways (Interstates 69, 45, 59, 548, 90, 610; State Routes 5, 288, 330, 225, 14) and cities (Houston, Crosby, Cloverleaf, Ch, Deer Park, Pasadena, Baytown) are visible. Airports are marked with airplane icons.

Lake Houston

**SJR Waste
Pits**

Houston Ship Channel

2.838 Kilometers

Morgan's Point

U.S. Army Corps of Engineers

Completed work:

- New model calibrated.
- Design/construction review of entire cap.
- Assessed potential dioxin migration through cap.
- Assessed potential barge strike impacts.
- Case history of armor failures.
- Sediment re-suspension & residuals; BMPs.

